TPO/Thrombopoietin Protein, Mouse (CHO)

Cat. No.:	HY-P7088
Synonyms:	rMuTPO; TPO
Species:	Mouse
Source:	CHO
Accession:	P40226 (S22-T356)
Gene ID:	21832
Molecular Weight:	30-80 kDa

PROPERTIES

AA Sequence	S P V A P A C D P R L L N K L L R D S H L L H S R L S Q C P D V D P L S I P V L L P A V D F S L G E W K T Q T E Q S K A Q D I L G A V S L L L E G V M A A R G Q L E P S C L S S L L G Q L S G Q V R L L L G A L Q G L L G T Q L P L Q G R T T A H K D P N A L F L S L Q Q L L R G K V R F L L L V E G P T L C V R R T L P T T A V P S S T S Q L L T L N K F P N R T S G L L E T N F S V T A R T A G P G L L S R L Q G F R V K I T P G Q L N Q T S R S P V Q I S G Y L N R T H G
Biological Activity	The ED_{50} is <2 ng /mL as measured by MO7e cells.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against PBS.
Endotoxin Level	<0.2 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Recombinant thrombopoietin reduces radiation- and chemotherapy-induced thrombocytopenia, enhances platelet recovery after bone marrow transplantation and increases the number of megakaryocyte precursor cells in stem cell harvests. Injection of thrombopoietin into animals stimulates the number, size and ploidy of bone marrow megakaryocytes and increases the platelet count up to ten-fold[1]. Superphysiological amounts of Thrombopoietin/TPO (>100 ng/mL) are

able to directly activate platelet aggregation in vitro. Thrombopoietin/TPO also has significant effects on platelet adhesion under flow. Low Thrombopoietin/TPO concentrations (001-1 ng/mL) accelerate firm platelet adhesion to von Willebrand factor and prevent de-attachment at higher flow rates[2].

REFERENCES

[1]. Kuter DJ, et al. Thrombopoietin: Biology and Clinical Applications. Oncologist. 1996;1(1 & 2):98-106.

[2]. Hitchcock IS, et al. Thrombopoietin from beginning to end. Br J Haematol. 2014 Apr;165(2):259-68.

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